

CLAIMS

1. Method for setting in adsorbed state, on a porous support, compounds contained in a product, in which, during a first step, the extraction of the compounds is effected by contacting the product with at least one solvent fluid at supercritical pressure leading to the obtaining of a mixture of extracts and of solvent fluid, and, in a second step:
  - the water contained in the mixture of extracts and of solvent fluid is eliminated, by causing the latter to trickle over a bed of adsorbent product adapted to fix this water selectively,
  - the temperature and pressure conditions are adjusted so as to obtain, in an enclosure (9), two phases, namely a first phase essentially constituted by the solvent fluid in the gaseous state and a second phase constituted by a mixture of liquids formed by solvent fluid and extracts of the product,
  - these two phases are made to trickle through a porous support adapted to adsorb the extracts,
  - the solvent fluid contained in the second phase is vaporized.
2. Method according to Claim 1, characterized in that the solvent fluid is constituted by carbon dioxide, by nitrogen protoxide or by a light hydrocarbon having from 2 to 8 carbon atoms.
3. Method according to one of the preceding Claims, characterized in that the solvent fluid is a

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pure fluid.

4. Method according to one of Claim 1 or 2, characterized in that the solvent

5 fluid has at least one co-solvent added thereto.

5. Method according to Claim 4, characterized in that the co-solvent is constituted by an alcohol and preferably ethanol, and/or by a ketone and preferably acetone, and/or by an ester and preferably ethyl acetate.

6. Method according to one of the preceding Claims, characterized in that the

10 first step of extraction is effected at a pressure included between 7.4 MPa and 80 MPa, and preferably between 10 MPa and 40 MPa, and at a temperature included between 0°C and 80°C.

7. Method according to one of the preceding Claims, characterized in that the

trickling of the two phases through the porous support is effected at a pressure

15 included between 1 MPa and 10 MPa, and preferably between 4 MPa and 8 Mpa, and at a temperature included between 0°C and 80°C.

8. Installation for extraction/impregnation of the type comprising an extractor

(1) and an impregnation enclosure (9) containing a porous medium, the extractor

(1) containing a product from which it is desired to extract the compounds, which

20 is traversed to that end by at least one solvent fluid at supercritical pressure,

characterized in that it successively comprises, downstream of the extractor (1),

means (5) for eliminating the water contained in the extracted compounds, means

(11) for contributing enthalpy, adapted to create, in the impregnation enclosure

(9), two phases, namely a

first phase essentially constituted by the solvent fluid in the gaseous state and a second phase constituted by a mixture of liquids formed by solvent fluid and the  
5 extracts of the product, so as to effect the adsorption by the porous medium of the extracted compounds.

9. Installation according to Claim 8, characterized in that the means for contributing enthalpy are constituted by a double envelope (11) with circulation of heat-exchange fluid.
10. Installation according to one of Claims 8 or 9, characterized in that the extractor (1) is constituted by a fractionating column operating in counter-flow, adapted for the treatment of liquid raw materials.
11. Installation according to one of Claims 8 to 10, characterized in that it comprises means for injecting an organic co-solvent within the solvent fluid.

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